

"In these cases we notice, further, that each letter is made, so to speak, with a jerk, and that the hand has difficulty in limiting the trace. In the p, for example, the descending line never ends in a neat termination; and we may say that there is a kind of impulse to continue. Also, at this period, the patients are hardly ever able to use the pen, but make use of the pencil, because the point of the pen catches every moment, and sputters, to use a common expression.

"At last, when the ataxy of the arms is very pronounced, the writing of a single word with the eyes closed, becomes impossible, and we obtain only a set of traces, unformed and without order.

"These different characteristics are seen in a series of *fac similes* of handwriting, which we have collected from various ataxic persons.

"We see that the modifications in the movements of the arms are analogous to those of the limbs; for one sees in the lower limbs, according to the development of the disease, first a slight titubation, and then a complete failure; and in the upper members, first a slightly modified penmanship, and afterwards a complete inability to form a single word.

"We would still remark that these facts come under the same rules as those we have shown to hold good for the formation of language and writing, as in almost every case the signature is correct, even when the eyes are shut.

"Further, when a person is in the habit of writing without stopping, and placing the dot over the i when the word is complete, the writing is much more altered when he attempts to dot the i's as they are written.

"On the other hand, and for the same reason, there is no trouble with those persons who put the dots on the i's only when they are made to write the words without stopping.

"So, for the word *electricity*, which contains two i's, we notice that the c and the t are badly formed if we ask the patient to write the word without dotting the letter. The changes in this case appear even with the eyes open, but become much more marked when they are shut."

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### c.—THERAPEUTICS OF THE NERVOUS SYSTEM AND MIND.

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PHYSOSTIGMIA.—Dr. J. Q. A. Hudson (*Southern Med. Record*, December, 1878) gives a paper on The Physiological Action and Therapeutic Uses of the Calabar Bean. His summary of its physiological action on man is as follows:

1. "It lessens the reflex action of the spinal cord, diminishing or destroying this function, according to the dose given. It is a perfect spinal paralyzer."

2. It acts in a slight degree to lessen the excitability of the motor nerves.
3. Muscular irritability is not affected.
4. The excitability of the afferent nerves is not affected; their sensibility is sometimes increased.
5. In small doses the action of the heart is weakened. This is shown either by a lessening of the number of beats, or by an increase in the number of beats, with feeble action. In large lethal doses the action of the heart is at once destroyed, and death results from cardiac syncope. The action of the heart ceases in diastole.
6. It sometimes contracts the pupil. This action, probably, frequently occurs with large doses, but when moderate doses are administered it is rarely observed; a dilatation of the pupil is an exceptional phenomenon.
7. Catharsis is sometimes observed; and the same may be said of vomiting and diaphoresis.

Dr. Hudson gives the following rules for the use of physostigma in tetanus:

1. Commence the treatment by the subcutaneous injection of one-fourth or one-third of a grain of the extract, dissolved in water, repeating and increasing the dose, according to its effect, every hour, or two hours, till the disease yields, or the action of the remedy is exhibited.
2. If the case is severe, and the spasms violent, continue the hypodermic method.
3. If not severe, after the use of the hypodermic method in the start, give the remedy by the stomach, every two or three hours, in treble the quantity, and with the syringe.
4. The patient must have a liberal supply of nourishing food and stimulation (if symptoms of debility arise), during the whole course of the disease.
5. Should there be manifestations of increased excitability of the sensory nerves, the exhibition of morphine, hydrate of chloral, or bromide of potassium, will aid in controlling this state of the sensory nerves.

The author also reviews the use of this agent in strychnia and atropia poisoning, chorea and epilepsy, in some of which (chorea, strychnia poisoning) he considers it of value. In cases of poisoning by atropia, he deems opium a preferable remedy. In epilepsy, a further trial is deemed desirable.

The local action of the drug upon the eye, is also discussed, and it is pronounced to be of value in cases of prolapsus of the iris and idiopathic mydriasis; also, to counteract the action of atropia, and to contract the pupil, previous to the operation of endectomy.

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HYOSCYAMIA.—M. Hellman (*Inaug. Dissert., Jena, 1873; abstr. in Centralblatt der Med. Wissensch.*) gives the results of a series of researches instituted by himself on hyoscyamine and its allied products. The experiments were made upon frogs and rabbits. The mydriatic effect of pure hyoscyamia is about the same as that of atropine, a quantity, inappreciable by chemical tests, was detected by this physiological reaction. A dose of one centigramme demonstrated the reflex irritability, apparently by paralysis of terminations of the cutaneous nerves. With atropine this effect is observed with only four millegrammes. The paralysis of the cardiac inhibitory centre, characteristic

of atropine, was not observed in frogs poisoned with from five to twenty milligrammes of hyoscyamine; but the frequency of the heart pulse decreased to one-half or one-third the normal number; while, on the contrary, in warm-blooded animals (dogs) which had received from five to thirty milligrammes, there was an increase of the frequency of the pulse, and a perfect paralysis of the vagus to electric irritation. The respiration is slowed in frogs by hyoscyamine; and in mammals, it is only in the later stages of the poisoning that it is quickened (as is always the case with atropine). This similarity in the physiological actions of hyoscyamine and atropine, caused Preyer to employ the former also, as an antidote in poisoning by Prussic acid; indeed, guinea-pigs were restored after receiving fatal doses of this poison.

The basic product of the common alkaloid, hyoscine, is an oily fluid, one-half to one drop of which, administered to frogs, produced, not the action of hyoscyamine, but powerful disturbances of the respiration, from which they sank in a short time. In rabbits, on the contrary, after the subcutaneous injection of three drops, there followed a paralysis of the cardiac termination of the vagus, as in the case of the use of the alkaloid itself, while the pulse frequency diminished but very little. No effect on the respiration was observed; and the action on the pupil was entirely lacking. Hyoscine acid, like tropic acid, is indifferent. The author describes the influence of tropine differently from Frazer. While the latter considered its action identical with that of atropine, except in its mydriatic power, the former finds it to possess no mentionable influence on the reflex activity or heart's action of frogs and rabbits, and to produce only a very slight decrease in the frequency of the respiration.

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PHOSPHORUS.—Willis E. Ford, M.D. (*Am. Jour. of Insanity*, Jan. 1874) gives a paper on the use of phosphorus in insanity, in patients dementing, or passing from the acute stage, either toward the more chronic form, or toward recovery. In this stage, he used the following formula, which is essentially the same as that of Anstie, Radcliffe, and others:

R.—Phosphori .....	grs. xxxij.
Pulv. acaciæ {	
Glycerinæ { aa .....	$\frac{7}{3}$ ss.
Aquæ .....	3 vj.
Pulv. ext. glycirrhizæ {	
Pulv. rad. glycirrhizæ { aa .....	$\frac{7}{3}$ jss.

Melt the first three ingredients in a closed porcelain vessel, and stir until the phosphorus is finely divided; then add the other ingredients, and divide into 960 pills; these are afterwards coated with collodion. The principal thing to be observed is, that the phosphorus be very finely subdivided, so that it may not cauterize the walls of the stomach.

These pills were administered three times a day, one after each meal, with very favorable results, in most cases. The temperature was brought nearer the normal stage; the pulse became more regular and full; the excretion of phosphorus approached the standard of health, and there were marked indications of mental improvement.

None of the disagreeable symptoms which are mentioned by authors, were observed, such as albumen, blood, or casts in the urine; and the author concludes that it can be safely and advantageously administered.

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OPIMUM AND ITS ALKALOIDS.—Dr. J. V. Laborde, in an article in the *Bull. Gen. de Therap.*, Dec. 15, 1873, gives the following conclusions in regard to the use of opium and its alkaloids:

1. The official preparations of opium in general use, offer more serious and real dangers than is usually believed, on account of the possible, and, indeed, frequent, predominance of the toxic and convulsive action of the principles contained and mixed in the raw substance.

2. The alkaloids should be substituted, as much as possible, for the crude opium, in practice.

3. Among the alkaloids, narceia and morphia should be preferred to the others, as much on account of their relatively inferior degree of toxic power as for the reliability of their action.

4. Finally, codeia should be employed only with great caution, if not entirely discarded, by reason of the insidiousness of its toxic action.

In the following number of the same periodical (Dec. 30), M. Laborde continues the subject. He gives at length the advantages of narceia, which he characterizes as the least toxic and most soporific of the opium alkaloids, not producing the inconvenient and disagreeable effects habitual to morphine. In regard to the method of administration, he prefers some of the liquid preparations to the pilular form, and recommends the administration of the morphia and narceia, by the intestine, either in injections or in suppositories. According to the author, narceia is especially adapted to the treatment of infancy; and he particularly mentions whooping-cough as among the affections to which it is most applicable. The disadvantages which have thus far prevented its more general use, are the difficulty of obtaining it pure, and its high price; these, however, may, perhaps, be both done away with, were the demand sufficient to justify its manufacture on an extended scale.

Joseph Parish, in an address on Opium Intoxication (published in the *Med. and Surg. Reporter*, Nov. 15 and 22), sums up as follows:

1. Opium is a poison.
2. Men take it not for social enjoyment, but for a physical necessity.
3. Taken thus, in proper doses, and in corresponding conditions, it is a valuable remedy. When it relieves physical or mental distress it fulfills its physiological purpose, and its use is legitimate.
4. It is a fascinating drug in its influence upon both mind and body, with persons who have opposing idiosyncrasy.
5. There is a constitutional condition which is in harmony with its hypnotic quality; and a constitutional condition which is in harmony with its excitant quality.
6. It will affect persons differently, as they are inclined by nature, or by the pathological condition which demands its use.
7. Taken in excess, it produces a diseased condition, certain symptoms of which are decided and specific.

8. To relieve the symptoms, it is desirable to avoid the shock, as it is desirable to avoid it in surgical operations.

9. For this purpose, the practitioner should immediately reduce the accustomed supply to the minimum dose which will meet this condition.

10. When the minimum is reached, the suffering of the patient begins, and then the practice should be to give tone to the nervous system as the opium stimulus is withdrawn. The reduction should be in minute quantities, and the tonic doses full and persistent.

11. The moral sentiment, the confidence and courage, of the patient, should at all times be kept up to the highest attainable degree.

12. Such a course will almost always secure the desired result.

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BROMIDE OF POTASSIUM.—The *Practitioner*, January, 1874, contains a paper on the therapeutic action of bromide of potassium, by Professor Binz, of Bonn, translated from the *Deutsche Klinik* by the editor, Dr. Anstie. The ground taken in this article is unfavorable to the prevailing opinion as to the therapeutic value of this medicinal agent. The author reviews the various researches in regard to the subject, and suggests that the favorable effects may be due to the potassium, and that the assumed nervine action has no other basis than this, with, perhaps, the aid of mental influence as suggested by Amburger. He concludes with the following words: "Without wishing wholly to deny the justice of the prevailing bromo-therapy, it may be well expected, from the manifold contradictory facts, that, of the many hundred weights of this salt which are now yearly expended, a few pounds will soon again be found sufficient for the purposes of scientific clinical medicine." This article is immediately followed by another from the pen of Dr. Anstie himself, in which the prevailing English, and, we may also say, American, opinion as to the actual value of this remedy, is set forth. He admits, however, that certain observations by eminent authorities have a bearing on the question of bromide medication, which fully justifies the scepticism which would demand further investigation of the subject.

Dr. J. Drouet (*Ann. Med. Psychologiques*, Sept., 1873) also gives an exceedingly sceptical article on the therapeutic value of bromide of potassium, in which he, without denying it a certain degree of efficacy in some cases, considers that it will, with oxide of zinc, and several other medicinal agents, which he assumes have had their day in the favor of the profession, be relegated to a much less prominent position among the remedies for nervous disorders than it holds at present.

Dr. Lunier, one of the editors of the *Ann. Med. Psychologiques*, appends a note at the close of the paper, in which, while he agrees with Drouet as to the overestimation of bromide of potassium, he holds that the oxide of zinc is undervalued in the connection in which it is put in the article.

A propos to this note, we may here state, also, that the author of the notice of Dr. Drouet's articles in the *Revue des Sci. Medicales*, does not, by any means, fully agree with him in his valuation of the bromide in epilepsy, and allied affections, and holds nearer to the average opinion of English and American authorities, based on their own clinical experience.

A letter from Dr. J. Warburton Begbie, called out by the papers of Drs. Binz and Anstie, is published in *The Practitioner* for February. The writer bears testimony as to the value of the bromide in epilepsy, insomnia from various causes, either alone, or as an adjunct to other remedies, in spasmodic diseases, etc., etc.

Immediately following Dr. Begbie's communication, in the same journal, is published an article by Dr. John W. Bligh, of Montreal, on the use of the bromide of potassium in the treatment of gonorrhœa. He considers that there is no drug in the pharmacopœia which, *prima facie*, promises such happy results in the treatment of this disease. He claims that it has the power not only to diminish the secretions, and relieve the pain of all mucous membranes, but also to produce a special sedative effect upon the organs of generation.

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NITRITE OF AMYL.—Dr. C. Steketec (*These of Utrecht*; abstr. in *Revue des Sci. Med.*)—The author commences with a description of the chemical papers on this drug, from its discovery by M. Balard, in 1844, down to the latest researches.

In the second place he gives a historical *resume* of its physiological action, and therapeutic employment, in which he cites French, English, and German observations, the experiments which have been made on animals, and the results of its administration in certain diseases, such as angina pectoris, hemicrania, trismus, melancholia, and epilepsy.

The results of the different experiments may be resumed as follows:

Nitrite of amyl diminishes the tension of the blood in the arteries.

This diminution is equally observed in cases of paralysis of the vaso-motor nerves in cutting the spinal cord below the first cervical vertebra, as in the contrary case.

Nitrite of amyl does not diminish the labor of the heart in the unit of time, although the number of contractions increases.

It has no influence on the nerves, but has on the contractile elements of the blood-vessels, because it diminishes the arterial tension in diminishing the resistance.

As to diseases, the author reviews particularly the effects obtained in melancholia, and shows that it is a palliative of transient influence. The patients find themselves much better in the evening, and sleep well during the night. Some shortly recover completely, while others fall back sooner or later into their habitual apathy.

In the third place, he publishes his own observations, likewise made by means of physiological experimentation, on himself and in animals, particularly on rabbits. From the first, he gives traces obtained by the sphygmograph; for the second, he gives graphic tables to indicate the tension in the auricular vessels. He adds to this study that of the administration of the medicament in cases of disease observed in the clinic of Utrecht: four of melancholia; six of epilepsy, or epileptic attacks.

In the cases of melancholia, he says that he has never seen the satisfactory results that others pretend they have obtained; and that in one case of active melancholia the effect was really injurious.

In regard to epilepsy he draws the following conclusions:

*a.*—This agent exerts an important influence in all cases of epilepsy in which the attacks are due to, or are accompanied by, cerebral anæmia.

1. Because it anticipates the attack when there are prodromata.
2. Because it cuts off the attack when it appears.
3. Because it relieves the symptoms due to interrupted innervation after the attack.
4. Because the attacks become less frequent (?). (Interrogation point put in by the author.)

*b.*—It is productive of injurious effects in all cases of epilepsy, where the attack is due to, or accompanied by, hyperæmia of the brain.

1. Because the attacks last longer, and become more frequent.
2. Because the attacks, either maniacal or convulsive, increase in intensity.

R. Pick (*Centralblatt der Med. Wissensch.*, 1873, No. 55) gives the results of his researches and observations on this agent. After stating the general symptoms following the inhalation of the vapor, in which he states that it produced no perceptible dilatation of the retinal vessels, he gives an account of a peculiar phenomenon which may be observed after the system is fully under the influence of the drug. Fixing the eye on one point of a bare wall, there is perceived a circular, intensely yellow space, surrounded by a violet blue ring, and still outside of this, numerous wavy lines. This appearance, according to the author, is nothing else than a projection of the macula lutea, to which the size of the yellow space corresponds. The outer circle of violet is the complementary color to the yellow, and the sinuous lines are the retinal vessels.

In regard to its action on the heart, he states that there follows a notable relaxation of its muscular walls. The increase of frequency of the pulse was noted by simply counting it in a narcotized dog. In respect to the respiration, he states that neither its frequency nor the capacity of the lungs were at all altered.

Nitrite of amyl is to be considered as a direct muscle-poison. This was proved by experiments on protozoa, which consists merely of contractile substance, without nerve elements, and by experiments on curarized frogs. The electric irritability of the muscles of the frogs poisoned with curare, was first determined, then the sartorii and gastrocnemii were prepared separately, and the one placed under a bell-glass filled simply with atmospheric air, and the other under a similar one, in which some wadding moistened with this substance was fastened. Ten minutes afterwards the latter was found perfectly uncontractible, while the other reacted to the electric current with nearly its original strength.

In regard to the question whether this agent, in acting on the vessels, did so from a centre, the author holds, with Brunton, as against Bernheim, the negative

The cases which the author has collected show that nitrite of amyl is a very useful medicament in various disorders: hemicrania, epilepsy, asthma, etc. He has also used it in a case of trismus and traumatic tetanus, and even then it produced a better muscular relaxation than curare.

ELECTRICITY.—Prof. Schwanda, in his general report of the Electrotherapeutical department of the *Wiener Allgemeiner Poliklinik*, for 1873 (reported in *Wiener Med. Presse* No. 2), gives the following particulars as to the results of electrical treatment under his supervision:

Out of seven hundred and forty-six cases thus treated, there were three hundred and sixty-four of neuralgia, fifty of hyperæsthesia, two hundred and thirty-four of paralysis, and ninety-eight of convulsive affections. Of these, a central disorder was diagnosticated in three hundred and five cases; in the remainder, the disturbance was presumed to be only peripheral. A complete cure was attained in three hundred and three cases; decided improvement in two hundred and twelve; in the remaining one hundred and thirty-six no alteration for the better was obtained.

The electrical treatment was isolated as completely as was practicable from all treatment by medication, so as to render it possible to form a judgment as to its value as a method of curing disease. Very few prescriptions were written for patients in Dr. Schwanda's department in the course of the year, and those for ailments which had no direct connection with that against which the electrical treatment was specially directed.

*Neuralgia of the Testicle cured by Electrization.*—This observation, given at length, and with a tone of gaiety peculiarly Italian, may be briefly stated. A young man, not suffering from any venereal trouble, was tormented with a neuralgia of the testicle, in the degree that he demanded instant castration, since the usual means of relief had proved unavailing. Dr. Felippi conceived the idea of employing the constant current; and after five applications the patient was cured. Unhappily, the author is less prolix as to his method of application. He simply informs us that he employed a feeble, constant current. A careful examination showed that the neuralgia was essential, that is, it did not depend on an affection of the gland, nor on an accumulation of fecal matter.

We have no reason to believe that the cure was not permanent; and undoubtedly electrization is a means of cure for neuralgias of the testicle, when they are essential; but we believe that the affection is more frequently only symptomatic: and then electrization fails. We have recently had a proof of this in two cases. The repeated use of purgatives in one, and the application of a bandage in the other, with which there co-existed an inguinal hernia, succeeded after the ordinary means, including galvanization, had been of no avail.—(*Gaz. Hebdomadaire fr. L'Impurziale*) *Bulletin Gen. de Therapeutique*, Dec. 30, 1873.

*Physiological Effects of Induction Currents.*—M. Onimus, in a note communicated to the *Acad. des. Sciences*, Dec. 1, 1873, through M. Becquerel (*Gaz. Med. de Paris*, Jan. 3), gives the result of his experiments in regard to the difference of the physiological action of induction currents, according to the composition of the wire forming the helix. He had constructed helices of copper, lead and argentan, exactly similar, in every respect, except as to composition, and influenced by the inducing current in precisely the same manner.

The effects on healthy nerves and muscles were found to be different, according to the metal used; generally, when the wire of the helix was a com-



paratively poor conductor, the contraction was stronger, and the impression on the cutaneous nerves was less vivid, than when a good conductor, copper, for example, was used. These effects are more marked as the exterior resistance is greater.

*General Electrization.*—Dr. R. Vaeter, of the University of Prague, in the preface to his translation of Beard and Rockwell's Medical and Surgical Electricity, thus speaks of the method of general electrization:

"Although general electrization had been used before by some electro-therapeutists, yet to Beard and Rockwell belongs the credit of giving it a scientific basis, and reducing it to a system. Of the advantage of this method, I have thoroughly and abundantly convinced myself by actual experience, and I can, therefore, conscientiously recommend its employment in very many cases."

Benedikt, in the recent second edition of his *Elektrotherapie*, also speaks with commendation of this method, and states that he can, in general, agree with the views of the American authors, and that he has attained excellent results in cases of sleeplessness of the insane, migraine, and general nervousness. He adds, a little farther on, that general electrization has the recommendation that, when all parts are electrized, the particular seat of disease is certainly not missed in the application.

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*CHLORAL.*—Dr. Anstie, in his journal, the *Practitioner*, for February, gives an account of a rather curious case of chloral poisoning, with comments. The patient, a medical man, had for some time been in the habit of taking chloral in large amounts, and had suffered from severe pains about the joints, dryness of the skin, and a peculiar intolerance of alcoholic stimulants. The pains were intensely aggravated by an accidental over-dose, which was the immediate cause of his coming under Dr. Anstie's observation. The use of chloral was completely stopped, the patient put under proper treatment, and recovery rapidly succeeded.

Dr. Anstie calls attention to the case as suggestive of new precautions in diagnosis and treatment. The prominent feature of pain in the joints is specially referred to, and the fact that similar pains may be produced (though rarely) by chronic alcoholism is referred to; similar ones also have been caused by prolonged abuse of chloroform inhalations; thus affording support to the theory that chloral is decomposed in the blood with the effect of producing free chloroform.

The other feature of intolerance of alcohol is mentioned, with the statement of Ludwig Kern, that it is dependent upon a weakened condition of the vaso-motor nerves of the head and face. In this case, as in others which have come under the author's observation, there co-existed with this condition in the head an opposite one (spasm) of the vessels of the lower extremities.

Still another consequence of the injurious action of chloral, which was seen in another patient, is mentioned by Dr. Anstie. It consisted in a partial paraplegia, which disappeared with the abandonment of the use of chloral. The author concludes with the following words:

"It is to be hoped that, before long, some one will give us a complete

account of the toxicological position of chloral; for there is certainly no drug introduced of late years, concerning which more erroneous rubbish has been taught. It is exceedingly useful, beyond doubt; but it is far enough from being harmless; and it would be well for us to get a complete view of the extent of its powers of mischief."

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THE MADAGASCAR ORDEAL POISON. — Andrew Davidson (*Jour. Anat. and Phys.*, Nov. 1873) publishes an account of the tanghinia or ordeal poison of Madagascar, in use in that island previous to the adoption of the Christian religion, and the laws and customs of civilization. This poison is derived from the kernel of the drupe of a large tree (*Tanghinia venenifera*) of the natural order Apocynaceæ, which grows abundantly on the eastern coast of the island. Two crystalline principles are reported to have been obtained from the tanghinia: one the bitter principle, tanghinin, and the other the poisonous principle, tanghicine. The author, however, in his experiments, used the emulsion obtained from the oily kernels, or the extracts made with ether and alcohol, and these were employed on warm-blooded animals (lemurs, cats, civets), and on frogs. The following are his general conclusions:

1. The tanghinia must be classed among the cardiac poisons. It uniformly causes death by arresting the actions of the heart.

2. It does not act on the heart through the vagus nerves. When applied to the exposed heart, its rapidity of action is remarkable. The fact that it arrests the pulsations of the excised heart of the frog, is conclusive proof that its influence, when topically applied, is direct, either on the muscular substance, or the muscular substance and cardiac ganglia.

3. There is sufficient reason to believe that the tanghinia acts on the spinal cord, producing paralysis, and diminishing reflex action.

4. Voluntary motion is abolished, and the irritability of the motor nerves lessened by the poison. When it acts through the circulation in mammalia, sensation is not remarkably affected; muscular contractility is very much diminished. More exact knowledge of the degree and order in which these various functions are affected, can only be obtained by carefully performed experiments made in Europe, where the more delicate instruments can be had.

5. It is exceedingly fatal to man, in doses of thirty grains of the kernel, if not promptly rejected.

6. It causes a numb, tingling sensation, in the part with which it comes in contact, and also throughout the body.

7. It is powerfully emetic and purgative; produces great nausea and debility, paralysis of motion, occasionally delirium, narcotism, and perhaps vertigo.

8. It may be inferred to cause death in man, as in all other animals, by tetanizing the heart.

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iodo-BROMIDE OF CALCIUM. — C. H. Guptill (*Hay's Jour.*, Jan., 1874) reports the case of a woman, aged forty-eight, who was suffering from the character-

istic symptoms of exophthalmic goitre, enlarged thyroid body, protrusion of the eyeballs, violent action of the heart, headaches, and nervous disturbances, which proved resistant to treatment with tonic remedies, digitalis, nervines, etc. About three and a half months after he was called, new features—induration of the abdominal muscles, and the muscles of the thighs and lower legs—appeared. At this period, he prescribed the iodo-bromide of calcium in solution, one-half a teaspoonful in water, morning, noon, and night; also, bathing the indurated portions with the same. Improvement at once followed this treatment; the nervous symptoms ceased; appetite and strength returned; and in six months the thyroid body was again its natural size. The patient regained good health, but is still, at the date of writing, compelled to keep up the use of the remedy: the omission of its use for a few weeks only, sufficing to cause a return of some of the symptoms. Dr. Gup-till concludes as follows:

“I regard the iodo-bromide of calcium as a very valuable addition to our therapeutical list. It is a decided sedative, as I have seen in other nervous cases. It is an efficient alterative, and is well calculated to meet many conditions where a sedative, alterative, and tonic treatment is required. The effect is very satisfactory where nervous irritability and debility are conjoined with a peculiar cachexia, as seen, for instance, in exophthalmic goitre.”

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